

What is claimed is:

1. A recording medium having a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

a data area storing at least video data as a transport stream in more than one file, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another.

2. The recording medium of claim 1, wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

3. The recording medium of claim 2, wherein each data block represents at least an intra-coded picture of video data.

4. The recording medium of claim 3, wherein each data block represents at least one group of pictures (GOP).

5. The recording medium of claim 2, further comprising:

a navigation area storing navigation information, the navigation information including a map associated with each file, each map providing position data for the video data of the associated file.

6. The recording medium of claim 5, wherein the navigation area includes a navigation data item, the navigation data item providing navigation information for reproducing each of the files.

7. The recording medium of claim 6, wherein the navigation area includes a navigation list, the navigation list including at least the navigation data item.

8. The recording medium of claim 7, wherein the navigation data item includes a multiple reproduction path indicator indicating that the navigation data item provides navigation information for multiple reproduction paths.

9. The recording medium of claim 6, wherein the navigation data item includes a multiple reproduction path indicator indicating that the navigation data item provides navigation information for multiple reproduction paths.

10. The recording medium of claim 1, further comprising:

a navigation area storing navigation information, the navigation information including a map associated with each reproduction path, each map providing position data for the video data of the associated file.

11. The recording medium of claim 10, wherein the navigation area includes a navigation data item, the navigation data item providing navigation information for reproducing each of files.

12. The recording medium of claim 11, wherein the navigation area includes a navigation list, the navigation list including at least the navigation data item.

13. The recording medium of claim 11, wherein the navigation data item includes a multiple reproduction path indicator indicating that the navigation data item provides navigation information for multiple reproduction paths.

14. The recording medium of claim 1, wherein each reproduction path represents a digital channel.

15. The recording medium of claim 1, wherein each reproduction path represents a sub-channel of an RF channel.

16. A method of recording a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

recording at least video data as a transport stream in more than one file on the recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another.

17. A method of reproducing a data structure for managing reproduction duration of at least video data representing multiple reproduction paths, comprising:

reproducing at least video data as a transport stream in more than one file from the recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another.

18. An apparatus for recording a data structure for managing reproduction duration at least video data representing multiple reproduction paths, comprising:

a driver for driving an optical recording device to record data on the recording medium;

a controller for controlling the driver to record at least video data as a transport stream in more than one file on the recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another.

19. An apparatus for reproducing a data structure for managing reproduction duration of at least video data representing multiple reproduction paths, comprising:

a driver for driving an optical reproducing device to reproduce data recorded on the recording medium;

a controller for controlling the driver to reproduce at least video data as a transport stream in more than one file from the recording medium, each file associated with a different one of the multiple reproduction paths, and the files

being interleaved with one another.